

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for debugging an application operating within a runtime environment and loaded into an application process, said method comprising:

creating a hosting process separate from the application process and not based on said application to be debugged by a debugger, wherein said hosting process is created prior to invoking the debugger;

starting said runtime environment in the hosting process prior to invoking the debugger;

attaching a debugger to said hosting process prior to invoking the debugger, and causing the attached debugger to enter into a hosting process mode where the attached debugger is to debug the application as loaded from the application process into the hosting process;

preloading, prior to invoking the debugger, selected assemblies into an application domain prior to receiving said request to debug;

receiving a request to debug the application prior to invoking the debugger; and

in response to receiving said request, loading the application from the application process into the hosting process; and

invoking the debugger with respect to the hosting process and not the application process.

2. (Canceled)

3. (Original) A method in accordance with claim 1, wherein said runtime environment comprises a hosted runtime environment.

4. (Original) A method in accordance with claim 1, wherein said runtime environment comprises a script interpreter.

5. (Original) A method in accordance with claim 1, wherein said runtime environment comprises an intermediate language interpreter
6. (Canceled)
7. (Original) A method in accordance with claim 1, further comprising:

creating an application domain within said hosting process for debugging said application.
8. (Original) A method in accordance with claim 1, further comprising:

configuring said debugger to a hosting process mode for debugging said application via said hosting process.
9. (Original) A method in accordance with claim 1, wherein said runtime environment is hosted by said hosting process.
10. (Original) A method in accordance with claim 1, wherein said application is developed in a design-time environment.
11. (Original) A method in accordance with claim 10, wherein said design-time environment is a rapid application design environment.
12. (Original) A method in accordance with claim 1, wherein performance of said acts of creating, starting and attaching prior to said act of receiving is not perceived by a user.
13. (Currently Amended) A system encoded in a computer-readable storage medium for debugging an application operating within a runtime environment and loaded into an application process, said system comprising:

a hosting process separate from the application process for:

preparing a hosting environment in which said application is debuggable by a debugger, wherein the hosting environment is prepared prior to invoking the debugger; and

receiving, prior to invoking the debugger, a request to debug said application,
wherein said hosting process is independent of said application;

the debugger for debugging said application via said hosting process; and

a design-time environment for hosting the debugger, wherein said hosting process is created, said runtime environment is started within said hosting process, and said debugger is attached to said hosting process before said request to debug said application is received by said design-time environment, the attached debugger being caused to enter into a hosting process mode where the attached debugger is to debug the application as loaded from the application process into the hosting process, and wherein in response to receiving said request, the application is loaded from the application process into the hosting process, and the debugger is invoked with respect to the hosting process and not the application process.

14. (Original) A system in accordance with claim 13, wherein an application domain is created within said hosting process for debugging said application.

15. (Original) A system in accordance with claim 14, wherein selected assemblies are preloaded into said application domain prior to receiving said request to debug.

16. (Original) A system in accordance with claim 13, wherein said runtime environment comprises a hosted runtime environment.

17. (Original) A system in accordance with claim 13, wherein said runtime environment comprises a script interpreter.

18. (Original) A system in accordance with claim 13, wherein said runtime environment comprises an intermediate language interpreter

19. (Canceled)

20. (Original) A system in accordance with claim 13, wherein said design-time environment comprises a rapid application development tool.

21. (Original) A system in accordance with claim 13, wherein said hosting process is created, said runtime environment is started within said hosting process, and said debugger is attached to said hosting process before said request to debug said application is received as background operations not perceived by a user of said system.

22. (Currently Amended) A computer readable storage medium encoded with a computer program code for directing a computer processor to debugging an application operating within a runtime environment and loaded into an application process, said program code comprising:

a create hosting process code segment for causing said computer processor to create a hosting process separate from the application process and not based on said application to be debugged by a debugger, wherein said hosting process is created prior to invoking the debugger;

a start runtime code segment for causing said computer processor to start said runtime environment in the hosting process;

an attach debugger code segment for causing said computer processor to attach a debugger to said hosting process prior to invoking the debugger, and causing the attached debugger to enter into a hosting process mode where the attached debugger is to debug the application as loaded from the application process into the hosting process;

a preload assembly code segment for causing said computer process to preload selected assemblies into an application domain prior to receiving said request to debug;

a receive code segment for causing said computer processor to, receive a request to debug the application prior to invoking the debugger;

a load application code segment for causing said computer processor to, in response to receiving said request, load the application from the application process into the hosting process; and

an invoke code segment for invoking the debugger with respect to the hosting process and not the application process.

23. (Canceled)
24. (Previously Presented) A computer readable storage medium in accordance with claim 22, wherein said runtime environment comprises a hosted runtime environment.
25. (Previously Presented) A computer readable storage medium in accordance with claim 22, wherein said runtime environment comprises a script interpreter.
26. (Previously Presented) A computer readable storage medium in accordance with claim 22, wherein said runtime environment comprises an intermediate language interpreter
27. (Canceled)
28. (Previously Presented) A computer readable storage medium in accordance with claim 22, said program code further comprising:
- a create application domain code segment for causing said computer processor to create an application domain within said hosting process for debugging said application.
29. (Previously Presented) A computer readable storage medium in accordance with claim 22, said program code further comprising:
- a configure debugger code segment for causing said computer processor to configure said debugger to a hosting process mode for debugging said application via said hosting process.
30. (Previously Presented) A computer readable storage medium in accordance with claim 22, wherein said application is developed by a design-time environment and said design-time environment comprises a rapid application development tool.
31. (Previously Presented) A computer readable storage medium in accordance with claim 22, wherein said application is developed by a design-time environment.

32. (Previously Presented) A computer readable storage medium in accordance with claim 31, wherein said design-time environment is a rapid application design environment.

33. (Previously Presented) A computer-readable storage medium in accordance with claim 22, wherein performance of said acts of creating, starting and attaching prior to said act of receiving is not perceived by a user.

34. (Currently Amended) A software development system encoded in a computer-readable storage medium and comprising:

a development tool that provides a user environment and interface to develop an application loaded into an application process, said user environment and interface including a user-operable control to begin debugging; and

a debugging preparation module that:

creates a hosting process separate from the application process and not based on said application to be debugged by a debugger, wherein said hosting process is created prior to invoking the debugger;

starts, in the hosting process, prior to invoking the debugger, a runtime environment under which said application is runnable; and

attaches a debugger to said hosting process prior to invoking the debugger, and causes the attached debugger to enter into a hosting process mode where the attached debugger is to debug the application as loaded from the application process into the hosting process;

said user-operable control causing said application to be loaded from the application process into the hosting process prior to invoking the debugger, said user-operable control thereafter invoking the debugger with respect to the hosting process and not the application process.

35. (Original) A system in accordance with claim 34, wherein said development tool comprises a rapid application development tool.

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36. (Original) A system in accordance with claim 34, wherein said hosting process comprises a hosted runtime environment.

37. (Original) A system in accordance with claim 34, wherein said user environment comprises a script interpreter.

38. (Original) A system in accordance with claim 34, wherein said user environment comprises an intermediate language interpreter

39. (Canceled)